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EXAMINER

TESKIN, FRED M

ART UNIT PAPER NUMBER

1713

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/522,017	Applicant(s) LAMBERT, YVES-JULIEN	
	Examiner Fred M. Teskin	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>012105</u> . | 6) <input type="checkbox"/> Other: ____. |

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The preliminary amendment of January 21, 2005, has been entered. Claims 1-7 are currently pending and under examination.

Claim 7 is rejected under 35 U.S.C. 101 because the claimed recitation of a "use", without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claims 5-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, the following grounds for indefiniteness apply to the indicated claims.

(A) Claim 6 provides the limitation to "the cooling of the polymer melt ...". There is insufficient antecedent basis for this limitation in the claims.

(B) Claim 7 provides for the use of polyisobutene, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 3454455 to Rasmussen.

Claim 5 is drawn to a process for manufacturing a net for packaging, comprising compounding together high-density polyethylene and polyisobutene, and converting the resultant polymer into a net.

Rasmussen discloses reticular structures made from polymers of α -olefins, particularly high-density polyethylene and isotactic polypropylene, and a method of manufacturing such structures (col. 1, ll. 31-34). The preferred method comprises the step of cross-laminating uniaxially oriented films of the α -olefin polymer in such a way that the cross-laminate product is provided with "a multitude of slits in closely spaced rows in a regular pattern" (col. 2, ll. 21-26). In view of the regular occurrence of apertures in the form of slits, the reticular structure is considered to qualify as a "net" as per the applicant's definition (specification, p. 1, ll. 5-6); further, its utility in packaging is explicitly suggested (col. 3, ll. 25-27).

As such, Rasmussen differs from claim 5 only in that the compounding together of high-density polyethylene and polyisobutene is not disclosed in a specific embodiment. In this regard, however, Rasmussen states, "said polymers [referring to high-density polyethylene and isotactic polypropylene] may contain a plasticizer, for example, polyisobutylene." (col. 2, ll. 19-20), as well as claiming a reticular structure in

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which the cross-laminated sheet material consists of either high-density polyethylene or isotactic polypropylene with an *admixed* plasticizer (col. 4, ll. 1-4).

Given (I) that polyisobutylene is the only specific plasticizer mentioned in Rasmussen and (II) that the primary purpose of a plasticizer is to improve polymer processability during shaping operations, one of ordinary skill would have been inclined to admix polyisobutylene with the high-density polyethylene in advance of the film-forming and cross-laminating steps of Rasmussen. Such admixing would constitute “compounding” as claimed, with the subsequent steps qualifying as a “converting” of the resultant polymer into a reticular structure embraced by the term “net”. Thus, the subject matter of claim 5 would have been *prima facie* obvious to one having ordinary skill in the art at the time of invention.

Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rasmussen, alone or in view of Bussey, III et al (“Bussey”) and the submission from Industrial Plasticizers.

Rasmussen discloses a reticular structure, useful as packaging, which comprises high-density polyethylene and polyisobutylene plasticizer, but fails to specifically disclose the claim limitations as to amount (claims 1, 2), number average molecular weight (claim 3) or viscosity (claim 4) of the polyisobutene.

Nevertheless, the clear intent of Rasmussen is to plasticize high-density polyethylene (or isotactic polypropylene) by admixing the polymer with polyisobutylene and those of ordinary skill would have understood the degree of plasticization to be

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concentration-dependent. Thus, it would have been apparent that routine tests must be conducted to determine the optimum amount of polyisobutylene balancing normal considerations such as desired plasticization degree and cost of the additive. Including in the reticular structure of Rasmussen high-density polyethylene and polyisobutylene in the amount claimed would therefore have been *prima facie* obvious as involving mere optimization of a result-effective variable. The mere discovery of optimum ranges for a particular application is not deemed inventive, where, as here, the general direction is disclosed by the prior art and the particular ranges as claimed do not appear to produce a new and unexpected result vis-à-vis the results of the prior art. *In re Irmischer*, 66 USPQ 314; *In re Swain et al*, 70 USPQ 412.

Alternatively, modification of the reticular structure of Rasmussen to include polyisobutylene in the amount claimed would have been obvious from consideration of the secondary art. In particular, the provision of wrap packaging material comprising a blend of ethylene polymers, e.g., high-density polyethylene, and polybutene tackifier in the amount claimed is taught by Bussey, column 1, lines 58-60; column 2, lines 17-20 and column 4, lines 35-44. According to Industrial Plasticizers (pp. 284-285), the polybutenes Indopol H-100 and Indopol H-300 are viscous butylene polymers being predominantly high molecular weight mono-olefins (85-98 %), the balance being isoparaffins. Both grades are described as useful plasticizers by softening or tackifying with a minimum decrease in melting point, and as compatible with hydrocarbon polymers.

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Accordingly, it would have been obvious to admix either grade of polybutene with the high-density polyethylene of Rasmussen in an amount as taught by Bussey, motivated by a reasonable expectation of achieving the desired plasticizing effect. And given the fact that both H-100 and H-300 are the same commercial grades used by applicant in the present invention (*cf.*, specification page 3, lines 1-2), it is reasonable to infer that such polybutenes will intrinsically possess a molecular weight and viscosity as claimed. Thus, the obvious use of H-100 or H-300 as the plasticizer in Rasmussen would produce a net structure meeting all the limitations of claims 1-4.

As to claim 7: while use of polyisobutene to increase the adhesiveness of nets is not discussed in Rasmussen, such use merely reflects the recognition by applicant of another advantage that would flow naturally from admixing polyisobutylene with high-density polyethylene in accordance with the reference teachings. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. *See Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Claim 6 would be allowable if amended or rewritten to overcome the rejection under 35 U.S.C. 112 set forth in this Office action and to include all the limitations of the base claim and any intervening claim.

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The following is a statement of reasons for the indication of allowable subject matter: Claim 6 calls for cooling of the polymer melt after compounding at a cooling rate of at least 13°C/second. Examiner has not found this limitation in the prior art within the meaning of 35 U.S.C. 102 or 103.

Any inquiry concerning this communication should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FMTeskin/11-27-05


FRED TESKIN
PRIMARY EXAMINER
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